



## **Application for Certification as an Eligible Energy Resource Under the Delaware Renewable Energy Portfolio Standard**

1. Name of Generation Unit<sup>1</sup>

Shearer, Kenneth Residence - K Shearer

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2. Generation Unit Address

36974 Blue Bill Drive, Selbyville, DE 19975

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- 2a. Is the Generation Unit located within the PJM control area?

Yes  No

- 2b. If No, does the Generation Unit have capabilities to be imported into PJM?<sup>23</sup>

Yes  No

2b1. Include NERC Tags (if Applicable; Other documentation may be required)

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3. Name of Owner

Kenneth Shearer

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Mailing Address

36974 Blue Bill Drive, Selbyville, DE 19975

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Phone 443-252-1277

Email dwainshearer@comcast.net

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Same as Contact Person

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<sup>1</sup> 26 Del. C. §352(11).

<sup>2</sup> 26 Del. C. §352 (6).

<sup>3</sup> Documentation will be required to substantiate import capabilities into PJM.

4. Name of Contact Person

Nancy Strahan

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Mailing Address

201 California Street, Suite 630

San Francisco, CA 94111

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Phone 1-877-466-4606

Email applications@srectrade.com

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5. Operational Characteristics:<sup>4</sup>

Fuel Types Used (check all that apply):

- Gas combustion from the anaerobic digestion of organic material
- Geothermal
- Ocean, wave or tidal actions, currents, or thermal differences
- Biomass
- Fuel Cells
- Hydroelectric
- Methane Gas captured from a landfill gas recovery system
- Solar
- Wind

\*If co-firing with fossil fuels, attach the allocation formula on file with PJM;  
co-fire start date N/A

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\*If multiple fuel types are utilized, attach the formula for computing the portion  
of output per fuel type

5a. Rated Capacity (in MW, not including battery storage)<sup>5</sup> 0.0096 MW

5b. Generation Unit's Final Approved Interconnection Date July 09, 2019

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<sup>4</sup> 26 Del. C. §352(6).

<sup>5</sup> Behind the meter Solar capacity should be entered in MW DC.

6. Is the Applicant's Generation Unit customer-sited generation?<sup>6</sup>

Yes       No

6a. Is the meter that measures generation a revenue grade meter?

Yes       No

7. Is the Applicant's Generation Unit a community owned generating facility?<sup>7</sup>

Yes       No

8. Does the Applicant's Generation Unit have battery storage?

Yes       No

If Yes, please answer a.-c.

8a. Can the Generation Unit's renewable energy generation be metered prior to any battery storage?

Yes       No

8b. What is the battery energy capacity in kWh? \_\_\_\_\_

8c. What is the battery charge/discharge rating in kW AC? \_\_\_\_\_

9. If the Applicant's installation is solar or wind sited in Delaware:

9a. Was the Generation Unit physically constructed or installed with a workforce that consists of at least 75% Delaware residents?

Yes<sup>8</sup>       No

9b. Does the installing company employ, in total, a minimum of 75% workers who are Delaware residents?

Yes<sup>8</sup>       No

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<sup>6</sup> 26 Del. C. §352(4) - "Customer-sited Generation" means a generating unit that is interconnected on the end use customer's side of the retail electricity meter in such a manner that it displaces all or part of the metered consumption of the end-use customer.

<sup>7</sup> 26 Del. C. §1001(5) - "Community-owned Energy Generating Generation Unit" means a renewable energy generating Generation Unit that has multiple owners or customers who share the output of the generator, which may be located either as a stand-alone Generation Unit or behind the meter of a participating owner or customer. The Generation Unit shall be interconnected to the distribution system and operated in parallel with an electric distribution company's transmission and distribution facilities.

<sup>8</sup> If Yes, please attach supporting documentation (see page 6 for details). Please note, in order to qualify for the Labor/Workforce Bonus, at least one of the options (a. or b.) must be met.

10. If the Applicant's installation is solar or wind sited in Delaware, is a minimum of 50% of the cost of the renewable energy equipment, inclusive of mounting components, manufactured in Delaware?

Yes\*

No

American Design and Build

Company Name of Installer

221 Gateway Drive

Address

Bel Air, MD 21014

Address

Signature of Company Representative

Adam Kollar

Print Name of Co. Representative

\*If Yes, please attach the following documentation:

- A copy of the supplier's invoice showing Delaware manufactured equipment with this facility identified
  - If the supplier's invoice shows only a coded Purchase Order (PO) number, a copy of the company's matching PO that includes the address where the materials were used/installed, must also be supplied
  - If using a master invoice, a record of the draws against the purchased quantity, on the master invoice, must show the address of each use and the quantity of material used

11. If the Applicant's installation is solar or wind sited in Delaware:

a. Was the facility physically constructed or installed with a workforce that consists of at least 75% Delaware residents?

Yes\*

No

b. Does the installing company employ, in total, a minimum of 75% workers who are Delaware residents?

Yes\*

No

American Design and Build

Company Name of Installer

221 Gateway Drive

Address

Bel Air, MD 21014

Address

Signature of Company Representative

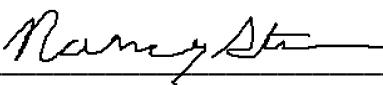
Adam Kollar

Print Name of Co. Representative

\*If Yes, please attach supporting documentation (see pages 7-8 for details). Please note, in order to qualify for the Labor/Workforce Bonus, at least one of the options (a. or b.) must be met.

I, Nancy Strahan (print name) hereby certify under penalty of perjury that

1. I have made reasonable inquiry, and the information contained in this Application is true and correct to the best of my knowledge, information and belief.
2. I am authorized to submit and execute this Application and to bind myself and/or my company to the representations contained herein.
3. I /my company agree(s) to comply with and be subject to the jurisdiction of the Public Service Commission of the State of Delaware for any matters arising out of my submission of this Application or the granting of the Application.
4. In the event that any of the information contained in this Application changes pending the consideration of this Application or after the Application is granted, I/my company will amend the Application to provide the Commission with such changed information.
5. I acknowledge that if any of the representations made in this Application or in any amendment thereto are found to be untrue when made, I/the company may be subject to sanctions, including but not limited to monetary fines and/or the revocation of any Certificate granted as a result of the representations made in this Application.

Signature: 

Date: \_\_\_\_\_ August 06, 2019

Company Name (if applicable): SRECTrade, Inc.

Position Title (if applicable): Director, Client Solutions

**Required Documentation:**

- If the Generation Unit is customer-sited generation, attach a copy of the utility's **Final Approved Interconnection Agreement**. The Agreement must include Generation Unit Address, Nameplate Capacity, and Interconnection Date.
- A copy of U.S. Department of Energy, Energy Information Administration Form EIA-860, if rated capacity is **>1.0 MW** and a copy of the **Final Approved Interconnection Agreement** including Generation Unit Address, Nameplate Capacity, and Interconnection Date.



## Documentation Required for Delaware Labor/Workforce Bonus

10. If the Applicant's installation is solar or wind sited in Delaware:

- a. Was the Generation Unit physically constructed or installed with a workforce that consists of at least 75% Delaware residents?
- b. Does the installing company employ, in total, a minimum of 75% workers who are Delaware residents?

If you answered yes to "a", list all employees used as direct labor (physical construction and installation) for this Generation Unit: (Attach additional sheets if necessary)

If you answered yes to "b", list EVERY employee on the payroll during the period from project start date until project completion date. Projects are considerate complete upon final interconnection approval to operate: (Attach additional sheets if necessary)

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Installation Company Name

Project Start Date: \_\_\_\_\_ Project Complete Date: \_\_\_\_\_

Employee Full Name	Home Address City, State Only (As per Tax Withholding)	Social Security Number (Last 2 digits Only)

Total Delaware Resident Employees: \_\_\_\_\_ Total Number of Employees: \_\_\_\_\_

% of Delaware Residents (Delaware Residents Divided by Total Employees): \_\_\_\_\_



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855-DEC-9090

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## **Delaware Electric Cooperative, Inc.**

### **Interconnection Application**

*(For Use with Systems Less than 100 kW DC)*

*REVISED April 2018*

This Interconnection Application also serves as a binding contract between Delaware Electric Cooperative, Inc. (hereinafter referred to as DEC) and each signatory listed herein.

#### **General Instructions and Expectations**

1. The preliminary portion of this application (Sections 1 through 12) and Addendum A must be submitted initially along with the application fee or a scanned copy of the check (see Section 6) to:

**Delaware Electric Cooperative, Inc.  
ATTN: Interconnection Application  
PO Box 600  
Greenwood, DE 19950**

Email: [interconnection@delaware.coop](mailto:interconnection@delaware.coop)

2. Should any Interconnection Application require multiple revisions by the Equipment Contractor and subsequent reviews, DEC reserves the right to charge a \$50 fee for each additional review.
3. Any Generating System requiring an upgrade to the DEC utility system will require the cooperative member to request that specific upgrade. Payment in full for all costs associated with the requested upgrade is required before construction of the Generating System is permitted to begin.
4. After the preliminary portion of this application (Sections 1 through 12) has been approved by DEC and returned to the Equipment Contractor, construction of the Generating System may begin.
5. The final portion of this application (Sections 1 through 14) and a scanned copy of the Inspection Certificate (if applicable) must be submitted for final approval after construction of the Generating System is complete. Upon submittal, DEC will meet with the Equipment Contractor to perform a field inspection of the installation. Any installations deemed unacceptable to DEC's standards, or any installation that alters the original, approved design intent will be corrected by the Equipment Contractor at no cost to DEC before final approval is granted.
6. When final approval is granted, DEC will install a net meter and return the approved Interconnection Application to the Equipment Contractor. Only at that time, will "Permission to Operate" be granted.
7. This application must be filled out in its entirety or it will be returned without review.



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## Delaware Electric Cooperative, Inc.

### Interconnection Application

(For Use with Systems Less than 100 kW DC)

REVISED January 2018

Type of Application: Initial  or Addition/Upgrade

Ownership: Leased  or Member Owned

Account(s): Single  or Aggregated

#### **1. DEC Member Information**

Name: Kenneth D Shearer

Address: 36974 Blue Bill Dr

Town: Selbyville State: DE Zip: 19975

DEC Account Number: 6429503

Sq Ft of Residence: 1700 Electric Heat? Yes  No

#### **2. Equipment Contractor Information**

Name: American Design And Build

Address: 221 Gateway Drive

Town: Bel Air State: MD Zip: 21014

Email: [adbuidica@gmail.com](mailto:adbuidica@gmail.com) Phone: 410-557-0555

#### **3. Electrical Contractor Information (If different from above)**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_



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REVISED January 2018

#### **4. Facility Information (If different from above)**

Address: 36974 Blue Bill Drive

Town: Selbyville State: DE Zip: 19975

Nearest DEC equipment tag number: \_\_\_\_\_

#### **5. General Service Requirements**

What size service is required for this system?

Same as existing  200A  320A  400A  600A  CT Metering

If this is a new account for the sole purpose of this Generating System, what Voltage/Phase will be required?

120/240V – 1Ø \_\_\_\_\_

120/208V – 1Ø \_\_\_\_\_

120/208V – 3Ø \_\_\_\_\_ (Consult DEC before designing 3Ø systems)

277/480V – 3Ø \_\_\_\_\_ (Consult DEC before designing 3Ø systems)

#### **6. Application Fee**

The application fee is \$50.00 per application for new or upgraded systems 25 kW DC or less. For systems over 25 kW DC the fee will be \$50.00 plus \$1.00 for each kW DC over the initial 25 kW DC. The application fee for systems where accounts will be aggregated is \$125 per application regardless of kW DC size. All Interconnection Applications submitted to DEC shall be accompanied with the appropriate fee made payable to DEC. The application fee is non-refundable. Applications returned for incomplete information will be subject to an additional \$50 application fee when resubmitted. No applications will be considered without the application fee. Returned checks will be assessed an additional fee based on DEC's Returned Check Policy.



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#### 7. Equipment Information

Is this equipment powered from a renewable source? Yes  No \_\_\_\_\_

Type of energy source:

Solar  Wind \_\_\_\_\_ Diesel \_\_\_\_\_ Natural Gas \_\_\_\_\_ Fuel Oil \_\_\_\_\_ Other \_\_\_\_\_

Will excess power be exported to DEC? Yes  No \_\_\_\_\_

(Typical) Maximum export: 9.6 / 7.2 kW DC/AC

24 month average usage (kWh) 1200 (monthly) Forecast monthly production (kWh) 1142

(Note: The forecast monthly production MUST be completed using 4.5 peak sunlight hours per day)

Generator (or solar collector) Manufacturer, Model Name, and Number: LG320N1K

(A copy of the generator nameplate and manufacturer's specification sheet may be substituted)

Quantity of PV Modules: 30 Size of PV Modules: 320

Inverter Manufacturer, Model Name, and Number: Enphase IQ7-60-2-US

(A copy of the inverter nameplate and manufacturer's specification sheet may be substituted)

Quantity of Inverters: 30

Please fill out the Initial Rating information if there is currently no Generating System on-site. If adding a Generating System to an existing system, fill out the Initial Rating information, the Added Rating information, and the Total Rating information.

#### Initial Rating:

DC System Design Capacity	<u>9.6</u>	(kW)
AC System Design Capacity	<u>7.2</u>	(kW)
	<u>7.2</u>	(kVA)

#### Added Rating:

DC System Design Capacity	<u>          </u>	(kW)
AC System Design Capacity	<u>          </u>	(kW)
	<u>          </u>	(kVA)

#### Total Rating:

DC System Design Capacity	<u>9.6</u>	(kW)
AC System Design Capacity	<u>7.2</u>	(kW)
	<u>7.2</u>	(kVA)



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In order to comply with Delaware State Law regarding output of an interconnection facility, DEC uses the following formula:

1. Enter the 24 month average usage (kWh):	<u>1200</u>	(Per month)
2. Multiply line 1 by 110%:	<u>1090</u>	(Maximum output permitted by Delaware law)
3. Enter maximum inverter rating (kVA):	<u>7.2</u>	(From nameplate, at appropriate voltage)
4. Multiply line 3 by 4.5 (hours):	<u>32.4</u>	(This is the maximum kWh possible per day)
5. Multiply line 4 by 365 (days):	<u>11826</u>	(This is the maximum kWh possible per year)
6. Divide line 5 by 12 (months):	<u>985.5</u>	(This is the maximum kWh possible per month)

*If line six (6) is equal to or less than line two (2), the system, as designed, will be approved by DEC.*

For DEC members that have greater than 12 months of usage history and less than 24 months of usage history, the most recent 12 months of usage history shall be used to obtain the average monthly usage necessary for calculating the inverter size as described above.

For DEC members that have no usage or less than 12 months of usage history, please consult DEC before designing the Generating System.

#### **8. Generator Disconnect Switch**

A lockable disconnect device shall be installed within three (3) feet of the DEC meter and accessible at all times by DEC personnel. The cost of this device and the installation thereof shall not be the responsibility of DEC.

#### **9. Equipment Certification**

Equipment that utilizes inverter technology must be compliant with *IEEE 929* and *Underwriters Lab. UL1741*. Equipment that utilizes a rotating machine must be compliant with DEC's *Technical Requirements for Parallel Operation of Member Owner Generation* document. By signing below, the Equipment Contractor certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance.

Company: American Design And Build

Name (print): Brett Vanpelt Date: \_\_\_\_\_

Signature: \_\_\_\_\_



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## Delaware Electric Cooperative, Inc.

### Interconnection Application

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#### **10. Aggregate Meter Information (if applicable)**

The following accounts shall be combined for the purpose of determining the twenty-four (24) months average usage (kWh) as required in the aforementioned formula regarding inverter sizing. Any surplus energy produced by the Generating System will be credited back to the accounts listed below. Each account must be active and ranked according to the order in which credit shall be applied. The specific method of remuneration will be determined by Delaware State Law, the DEC tariff, and member approval.

1. Name: \_\_\_\_\_ Rate: \_\_\_\_\_

Account No. \_\_\_\_\_ 24 month average usage (kWh): \_\_\_\_\_ (monthly)

2. Name: \_\_\_\_\_ Rate: \_\_\_\_\_

Account No. \_\_\_\_\_ 24 month average usage (kWh): \_\_\_\_\_ (monthly)

3. Name: \_\_\_\_\_ Rate: \_\_\_\_\_

Account No. \_\_\_\_\_ 24 month average usage (kWh): \_\_\_\_\_ (monthly)

4. Name: \_\_\_\_\_ Rate: \_\_\_\_\_

Account No. \_\_\_\_\_ 24 month average usage (kWh): \_\_\_\_\_ (monthly)

5. Name: \_\_\_\_\_ Rate: \_\_\_\_\_

Account No. \_\_\_\_\_ 24 month average usage (kWh): \_\_\_\_\_ (monthly)

Any additional meters associated with the aggregated system must be supplied on a separate sheet in the same format.



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REVISED January 2018

#### 13. Installation Details

The Generating System will be installed by: Owner \_\_\_\_\_ State Licensed Electrician

Installing Electrician: Chad J. Perkins

Company: American Design and Build LTD License No.: T1-0006254

Mailing Address: 221 Gateway Drive

Town: Bel Air State: MD Zip: 21014

Email: adbldcda@gmail.com Phone: 410-557-0555

Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code of the municipality of Sussex County.

Signed (Inspector): Inspection Cert Attached Date: 6/19/19  
(In lieu of signature of Inspector, a copy of the final inspection certificate may be attached)

#### 14. FINAL Approval or Non-Approval

Delaware Electric Cooperative: Has Approved  Has Not Approved \_\_\_\_\_ this interconnection application.

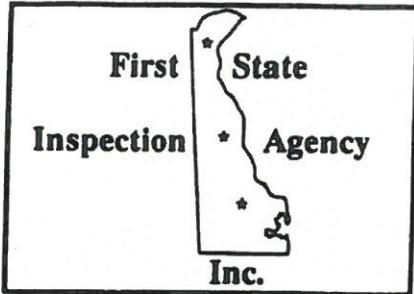
Name: LPGIII Date: 7/9/19

Signature: L. Paul Greenlee III

Digitally signed by L. Paul Greenlee III  
Name: L. Paul Greenlee III, or Delaware Electric Coop, ou,  
email: lpg@delawareelectriccoop.coop, c=US  
Date: 2019.07.09 13:03:19 -04'00'

Reason for not approving this Interconnection Application: \_\_\_\_\_

"Permission to Operate" has been granted as of: 7/9/19



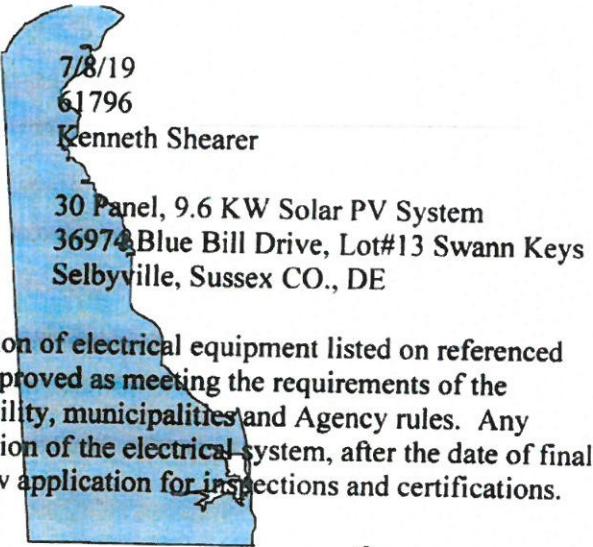
**First State Inspection Agency, Inc.**  
**Milford, DE 19963**  
**1001 Mattlind Way**

**1-800-468-7338**  
**302-422-3859**

American Design and Build  
Chad Perkins  
221 Gateway Drive  
Bel Air, MD 21014

## **CERTIFICATE**

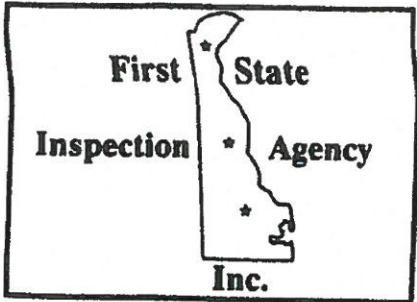
Final Inspection Date:  
Application #:  
Owner:  
Customer Job #:  
Occupancy:  
Location:



This certifies that the installation of electrical equipment listed on referenced application has been approved as meeting the requirements of the National Electric Code, utility, municipalities and Agency rules. Any modification, addition or alteration of the electrical system, after the date of final inspection, will require a new application for inspections and certifications.

*Roland L. Lutz*  
**Chief Electrical Inspector**

F.S. CERT



**First State Inspection Agency, Inc.**  
Milford, DE 19963  
**1001 Mattlind Way**

**1-800-468-7338**  
**302-422-3859**

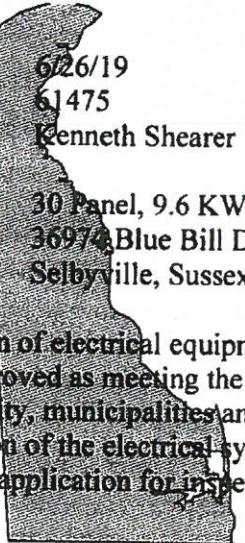
American Design and Build  
Chad Perkins  
221 Gateway Drive  
Bel Air, MD 21014

## **CERTIFICATE**

Final Inspection Date:  
Application #:  
Owner:  
Customer Job #:  
Occupancy:  
Location:

6/26/19  
61475  
Kenneth Shearer  
30 Panel, 9.6 KW Solar PV System  
36974 Blue Bill Drive, Lot#13 Swann Keys  
Selbyville, Sussex Co., DE

This certifies that the installation of electrical equipment listed on referenced application has been approved as meeting the requirements of the National Electric Code, utility, municipalities and Agency rules. Any modification, addition or alteration of the electrical system, after the date of final inspection, will require a new application for inspections and certifications.

  
*Robert L. Lee*  
**Chief Electrical Inspector**

F.S. CERT



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REVISED January 2018

#### 11. Signatures

##### DEC Member

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Application is true and correct.

Name (print): Kenneth D. Shearur Date: 5/15/19  
Signature: [Signature]

##### Equipment Contractor

I hereby certify that the information regarding the Generating System is complete, accurate, and shall be installed as designed in accordance with all applicable standards.

Company: American Design And Build  
Name (print): Brett Vanpelt Date: \_\_\_\_\_  
Signature: \_\_\_\_\_

##### Electrical Contractor (if different from above)

I hereby certify that all wiring and installation of associated equipment shall be completed in compliance with all applicable NEC codes.

Company: \_\_\_\_\_  
Name (print): \_\_\_\_\_ Date: \_\_\_\_\_  
Signature: \_\_\_\_\_

#### 12. PRELIMINARY Approval to Proceed with Interconnection

Returned without review due to insufficient information: \_\_\_\_\_

Delaware Electric Cooperative: Has Approved X Has Not Approved \_\_\_\_\_ this preliminary application.

Reason for not approving: \_\_\_\_\_

Name: LPGIII Date: 5/24/2019  
Signature: L. Paul Greenlee III

Digital signature of L. Paul Greenlee III  
DN: cn=L. Paul Greenlee III,o=Delaware Electric Coop,ou=email:l.pgreenlee@delaware.coop,c=US  
Date: 2019.05.24 14:15:16 -04'00'